

CHAPTER II

Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.'" M.P.E.P., § 601, 7th ed.

TRANSMITTAL LETTER
TO THE UNITED STATES ELECTED OFFICE (EO/US)
(ENTRY INTO U.S. NATIONAL PHASE UNDER CHAPTER II)

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/IT00/00042	11 Feb. 2000	8 March 1999

TITLE OF INVENTION

DISASSEMBLABLE ROLLING MILL STAND

APPLICANT(S)

NARDUZZI, Lorenzo

Box PCT

Assistant Commissioner for Patents

Washington D.C. 20231

ATTENTION: EO/US

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

- ☒ deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

37 C.F.R. § 1.8(a)

37 C.F.R. § 1.10 *

- ☐ with sufficient postage as first class mail.

- ☒ as "Express Mail Post Office to Addressee"

Mailing Label No. _____ (mandatory)

TRANSMISSION

- ☐ facsimile transmitted to the Patent and Trademark Office, (703) _____

Date: 8-28-01

Signature

John S. Egbert

(type or print name of person certifying)

* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 1 of 9)

NOTE: To avoid abandonment of the application, the applicant shall furnish to the USPTO, not later than 20 months from the priority date: (1) a copy of the international application, unless it has been previously communicated by the International Bureau or unless it was originally filed in the USPTO; and (2) the basic national fee (see 37 C.F.R. § 1.492(a)). The 30-month time limit may not be extended. 37 C.F.R. § 1.495.

WARNING: Where the items are those which can be submitted to complete the entry of the international application into the national phase are subsequent to 30 months from the priority date the application is still considered to be in the international state and if mailing procedures are utilized to obtain a date the express mail procedure of 37 C.F.R. § 1.10 must be used (since international application papers are not covered by an ordinary certificate of mailing—See 37 C.F.R. § 1.8.

NOTE: Documents and fees must be clearly identified as a submission to enter the national state under 35 U.S.C. § 371 otherwise the submission will be considered as being made under 35 U.S.C. § 111. 37 C.F.R. § 1.494(f).

- I. Applicant herewith submits to the United States Elected Office (EO/US) the following items under 35 U.S.C. § 371:
 - a. ☒ This express request to immediately begin national examination procedures (35 U.S.C. § 371(f)).
 - b. ☒ The U.S. National Fee (35 U.S.C. § 371(c)(1)) and other fees (37 C.F.R. § 1.492) as indicated below:

09/914480

[illegible]

CLAIMS FEE	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
<input type="checkbox"/> *	TOTAL CLAIMS	6 - 20 =		× \$18.00 =	\$
	INDEPENDENT CLAIMS	1 - 3 =		× \$80.00 =	
	MULTIPLE DEPENDENT CLAIM(S) (if applicable) + \$270.00				
BASIC FEE**	<input type="checkbox"/> U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where an International preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: <ul style="list-style-type: none"> <input type="checkbox"/> and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4)) \$100.00 <input type="checkbox"/> and the above requirements are not met (37 C.F.R. § 1.492(a)(1)) \$690.00 <input checked="" type="checkbox"/> U.S. PTO WAS NOT INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY Where no international preliminary examination fee as set forth in § 1.482 has been paid to the U.S. PTO, and payment of an international search fee as set forth in § 1.445(a)(2) to the U.S. PTO: <ul style="list-style-type: none"> <input type="checkbox"/> has been paid (37 C.F.R. § 1.492(a)(2)) \$710.00 <input type="checkbox"/> has not been paid (37 C.F.R. § 1.492(a)(3)) \$1000.00 <input checked="" type="checkbox"/> where a search report on the international application has been prepared by the European Patent Office or the Japanese Patent Office (37 C.F.R. § 1.492(a)(5)) \$860.00 				860
	Total of above Calculations =				860
SMALL ENTITY	Reduction by 1/2 for filing by small entity, if applicable. Assertion must be made. (note 37 C.F.R. § 1.27)				- 430
	Subtotal				430
	Total National Fee \$				430
	Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET".				
TOTAL	Total Fees enclosed \$				430

*See attached Preliminary Amendment Reducing the Number of Claims.

- ☐ Attached is a ☐ check ☐ money order in the amount of \$ _____
- ☒ Authorization is hereby made to charge the amount of \$ 430
- ☐ to Deposit Account No. _____
- ☒ to Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: Credit card information should not be included on this form as it may become public.

- ☒ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

****WARNING:** *"To avoid abandonment of the application the applicant shall furnish to the United States Patent and Trademark Office not later than the expiration of 30 months from the priority date: * * * (2) the basic national fee (see § 1.492(a)). The 30-month time limit may not be extended." 37 C.F.R. § 1.495(b).*

WARNING: *If the translation of the international application and/or the oath or declaration have not been submitted by the applicant within thirty (30) months from the priority date, such requirements may be met within a time period set by the Office. 37 C.F.R. § 1.495(b)(2). The payment of the surcharge set forth in § 1.492(e) is required as a condition for accepting the oath or declaration later than thirty (30) months after the priority date. The payment of the processing fee set forth in § 1.492(f) is required for acceptance of an English translation later than thirty (30) months after the priority date. Failure to comply with these requirements will result in abandonment of the application. The provisions of § 1.136 apply to the period which is set. Notice of Jan. 3, 1993, 1147 O.G. 29 to 40*

- ☒ **Assertion of Small Entity Status**
☒ **Applicant hereby asserts status as a small entity under 37 C.F.R. § 1.27.**

NOTE: 37 C.F.R. § 1.27(c) deals with the assertion of small entity status, whether by a written specific declaration thereof or by payment as a small entity of the basic filing fee or the fee for the entry into the national phase as states:

“(c) Assertion of small entity status. Any party (person, small business concern or nonprofit organization) should make a determination, pursuant to paragraph (f) of this section, of entitlement to be accorded small entity status based on the definitions set forth in paragraph (a) of this section, and must, in order to establish small entity status for the purpose of paying small entity fees, actually make an assertion of entitlement to small entity status, in the manner set forth in paragraphs (c)(1) or (c)(3) of this section, in the application or patent in which such small entity fees are to be paid.

(1) *Assertion by writing.* Small entity status may be established by a written assertion of entitlement to small entity status. A written assertion must:

- (i) *Be clearly identifiable;*
- (ii) *Be signed (see paragraph (c)(2) of this section); and*
- (iii) *Convey the concept of entitlement to small entity status, such as by stating that applicant is a small entity, or that small entity status is entitled to be asserted for the application or patent. While no specific words or wording are required to assert small entity status, the intent to assert small entity status must be clearly indicated in order to comply with the assertion requirement.*

(2) *Parties who can sign and file the written assertion. The written assertion can be signed by:*

- (i) One of the parties identified in §§ 1.33(b) (e.g., an attorney or agent registered with the Office), §§ 3.73(b) of this chapter notwithstanding, who can also file the written assertion;
- (ii) At least one of the individuals identified as an inventor (even though a § 1.63 executed oath or declaration has not been submitted), notwithstanding §§ 1.33(b)(4), who can also file the written assertion pursuant to the exception under § 1.33(b) of this part; or
- (iii) An assignee of an undivided part interest, notwithstanding §§ 1.33(b)(3) and 3.73(b) of this chapter, but the partial assignee cannot file the assertion without resort to a party identified under § 1.33(b) of this part.

COPIES

(3) Assertion by payment of the small entity basic filing or basic national fee. The payment, by any party, of the exact amount of one of the small entity basic filing fees set forth in §§ 1.16(a), (f), (g), (h), or (k), or one of the small entity basic national fees set forth in §§ 1.492(a)(1), (a)(2), (a)(3), (a)(4), or (a)(5), will be treated as a written assertion of entitlement to small entity status even if the type of basic filing or basic national fee is inadvertently selected in error.

(i) If the Office accords small entity status based on payment of a small entity basic filing or basic national fee under paragraph (c)(3) of this section that is not applicable to that application, any balance of the small entity fee that is applicable to that application will be due along with the appropriate surcharge set forth in §§ 1.16(e), or §§ 1.16(f).

(ii) The payment of any small entity fee other than those set forth in paragraph (c)(3) of this section (whether in the exact fee amount or not) will not be treated as a written assertion of entitlement to small entity status and will not be sufficient to establish small entity status in an application or a patent."

3. ☒ A copy of the International application as filed (35 U.S.C. § 371(c)(2)):

NOTE: Section 1.495 (b) was amended to require that the basic national fee and a copy of the international application must be filed with the Office by 30 months from the priority date to avoid abandonment. "The International Bureau normally provides the copy of the international application to the Office in accordance with PCT Article 20. At the same time, the International Bureau notifies applicant of the communication to the Office. In accordance with PCT Rule 47.1, that notice shall be accepted by all designated offices as conclusive evidence that the communication has duly taken place. Thus, if the applicant desires to enter the national stage, the applicant normally need only check to be sure the notice from the International Bureau has been received and then pay the basic national fee by 30 months from the priority date." Notice of Jan. 7, 1993, 1147 O.G. 29 to 40, at 35-36. See item 14c below.

- a. ☒ is transmitted herewith.
- b. ☐ is not required, as the application was filed with the United States Receiving Office.
- c. ☐ has been transmitted
 - i. ☐ by the International Bureau.

Date of mailing of the application (from form PCT/1B/308):

- ii. ☐ by applicant on _____ (Date)

4. ☒ A translation of the International application into the English language (35 U.S.C. § 371(c)(2)):

- a. ☐ is transmitted herewith.
- b. ☒ is not required as the application was filed in English.
- c. ☐ was previously transmitted by applicant on _____ (Date)
- d. ☐ will follow.

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5. ☐ Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. § 371(c)(3)):

NOTE: The Notice of January 7, 1993 points out that 37 C.F.R. § 1.495(a) was amended to clarify the existing and continuing practice that PCT Article 19 amendments must be submitted by 30 months from the priority date and this deadline may not be extended. The Notice further advises that: "The failure to do so will not result in loss of the subject matter of the PCT Article 19 amendments. Applicant may submit that subject matter in a preliminary amendment filed under section 1.121. In many cases, filing an amendment under section 1.121 is preferable since grammatical or idiomatic errors may be corrected." 1147 O.G. 29-40, at 36.

- a. ☐ are transmitted herewith.
b. ☐ have been transmitted
i. ☐ by the International Bureau.

Date of mailing of the amendment (from form PCT/1B/308):

- ii. ☐ by applicant on _____. (Date)
c. ☐ have not been transmitted as
i. ☐ applicant chose not to make amendments under PCT Article 19.
Date of mailing of Search Report (from form PCT/ISA/210):

ii. ☐ the time limit for the submission of amendments has not yet expired. The amendments or a statement that amendments have not been made will be transmitted before the expiration of the time limit under PCT Rule 46.1.

6. ☐ A translation of the amendments to the claims under PCT Article 19 (38 U.S.C. § 371(c)(3)):
a. ☐ is transmitted herewith.
b. ☐ is not required as the amendments were made in the English language.
c. ☐ has not been transmitted for reasons indicated at point 5(c) above.

7. ☒ A copy of the international examination report (PCT/IPEA/409)
☒ is transmitted herewith.
☐ is not required as the application was filed with the United States Receiving Office.

8. ☒ Annex(es) to the international preliminary examination report
a. ☒ is/are transmitted herewith.
b. ☐ is/are not required as the application was filed with the United States Receiving Office.

9. ☒ A translation of the annexes to the international preliminary examination report
a. ☐ is transmitted herewith.
b. ☒ is not required as the annexes are in the English language.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 6 of 9)

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10. ☒ An oath or declaration of the inventor (35 U.S.C. § 371(c)(4)) complying with 35 U.S.C. § 115
- a. ☐ was previously submitted by applicant on _____. (Date)
 - b. ☐ is submitted herewith, and such oath or declaration
 - i. ☐ is attached to the application.
 - ii. ☐ identifies the application and any amendments under PCT Article 19 that were transmitted as stated in points 3(b) or 3(c) and 5(b); and states that they were reviewed by the inventor as required by 37 C.F.R. § 1.70.
 - c. ☒ will follow.

II. Other document(s) or information included:

11. ☒ An International Search Report (PCT/ISA/210) or Declaration under PCT Article 17(2)(a):
- a. ☒ is transmitted herewith.
 - b. ☐ has been transmitted by the International Bureau.
Date of mailing (from form PCT/IB/308): _____
 - c. ☐ is not required, as the application was searched by the United States International Searching Authority.
 - d. ☐ will be transmitted promptly upon request.
 - e. ☐ has been submitted by applicant on _____. (Date)
12. ☐ An Information Disclosure Statement under 37 C.F.R. §§ 1.97 and 1.98:
- a. ☐ is transmitted herewith.

Also transmitted herewith is/are:

- ☐ Form PTO-1449 (PTO/SB/08A and 08B).
 - ☐ Copies of citations listed.
 - b. ☐ will be transmitted within THREE MONTHS of the date of submission of requirements under 35 U.S.C. § 371(c).
 - c. ☐ was previously submitted by applicant on _____. (Date)
13. ☒ An assignment document is transmitted herewith for recording.

A separate ☒ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.

S.I.M.A.C. SPA

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 7 of 9)

☒ will follow.

097/914480

THE UNIVERSITY OF CHICAGO

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 8 of 9)

☐ 37 C.F.R. § 1.492(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.492(d)), it might be best not to authorize the PTO to charge additional claim fees, except possible when dealing with amendments after final action.

☐ 37 C.F.R. § 1.17 (application processing fees)

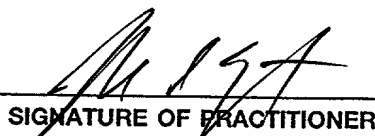
☐ 37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a).

☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying . . . issue fee." From the wording of 37 C.F.R. § 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

☐ 37 C.F.R. § 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 30 months after the priority date).



 SIGNATURE OF PRACTITIONER
 John S. Egbert

Reg. No.: 30,627

Tel. No.: (713) 224-8080

Customer No.: 24106

 (type or print name of practitioner)
 Harrison & Egbert
 412 Main St., 7th Floor

 P.O. Address
 Houston, Texas 77002

20010828 0844550

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: NARDUZZI, Lorenzo

SERIAL NO.: (Intl Appn No. PCT/IT00/00042)

FILED: (Intl File Date: 11 Feb. 2000)

TITLE: DISASSEMBLABLE ROLLING MILL STAND

PRELIMINARY AMENDMENT

Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as follows:

IN THE SPECIFICATION

On page 1, please delete the paragraph beginning with "TITLE OF" and ending with "INVENTION".

On page 1, the paragraph beginning with "FIELD OF" and ending with "THE INVENTION.", please substitute as follows:

BACKGROUND OF THE INVENTION

1. Field of the Invention

On page 1, the paragraph beginning with "The present invention" and ending with "mill stand.", please substitute as follows:

The present invention are also relates to a disassemblable rolling mill stand.

On page 1, the paragraph beginning with "BACKGROUND" and ending with "ART", please substitute as follows:

2. Description of the Related Art

On page 2, the paragraph beginning with "BRIEF DESCRIPTION" and ending with "THE INVENTION", please substitute as follows:

BRIEF SUMMARY OF THE INVENTION

On page 3, the paragraph beginning with "In alternative said" and ending with "at the base.", please substitute as follows:

In the alternative said bedplate is intended to receive a rolling mill assembly with horizontal cylinders with eight engaged pivoting large screws: four upper screws on the guide uprights and four at the base.

On page 3, the paragraph beginning with "BRIEF DESCRIPTION" and ending with "OF THE DRAWINGS", please substitute as follows:

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

On page 4, the paragraph beginning with "Figs. 11-13" and ending with "(Fig. 13-14).", please substitute as follows:

Figs. 11-14 are schematic side views showing the invention as in the preceding figures, with extracted rolling mill stand (figs. 11-12) with respect to the underlying bedplate (Fig. 13-14).

IN THE CLAIMS

On page 6, the paragraph beginning with "CLAIMS" and ending with "CLAIMS", please substitute as follows:

CLAIMS

I Claim:

In Claim 1, please substitute the claim as follows:

1. (Amended) Disassemblable rolling mill stand comprising a bedplate structure with a substantially "U"-shaped embedding (1), within which a rolling mill assembly (2), with at least one couple of horizontal rolling cylinders (210-310), is embedded and fixed by fixing means (202-10/12) to said bedplate (1),

wherein said substantially "U"-shaped embedding structure extends upwards with opposite vertical-guide uprights (11) to include the upper horizontal cylinder (210-310), and realizes vertical sliding embedding guide means (11) with corresponding opposite vertical counter-guides (201) in said rolling mill assembly (2) which couple inside of said opposite vertical-guide uprights (11),

and wherein said opposite vertical counter-guides (201) are comprised of external side retaining extensions (201-200) realised with sliding surfaces (200) substantially shaped like a "C" and opposite C", horizontally outwards opened (11-110-201).

In Claim 2, please substitute the claim as follows:

2. (Amended) Disassemblable rolling mill stand according to Claim 1, wherein said rolling mill assembly (2) is a universal rolling mill assembly comprised of a couple of horizontal cylinders (210), and couple of extractable vertical rolling mill side assemblies (22-220), laterally extractable and interchangeable by means of eight horizontal large screws, opposite four by four (202).

In Claim 3, please substitute the claim as follows:

3. (Amended) Rolling mill stand according to Claim 2, wherein said eight horizontal large screws, opposite four by four (202), are identical to said fixing means, which guide and tighten not only, said extractable vertical rolling mill side assemblies (22-220) on the centrally arranged horizontal rolling mill assembly (21), but also the whole universal rolling mill assembly (2) between said guide uprights (11).

In Claim 4, please substitute the claim as follows:

4. (Amended) Disassemblable rolling mill stand according to claim 1, wherein said rolling mill assembly (2) further comprises a single couple of horizontal rolling cylinders (3-310).

In Claim 5, please substitute the claim as follows:

5. (Amended) Disassemblable rolling mill stand according to Claim 1, wherein said fixing means comprise eight rotatable large screws (10-12), wherein four opposite rotatable large screws (10), are upper pivoted in couple, to the corners of said guide uprights (11) of said bedplate (1) and, wherein four opposite rotatable large screws (12), are pivoted in couple, on the base of said bedplate (1).

In Claim 6, please substitute the claim as follows:

6. (Amended) Disassemblable rolling mill stand according to Claim 1, wherein said rolling mill assembly (2) comprises two couples of screw-stay-rods (212) operating on respective gaskets for the holding of horizontal rolling cylinders (210).

IN THE ABSTRACT

On a separate page 8, please insert the newly added Abstract as follows:

ABSTRACT OF THE DISCLOSURE

Disassemblable rolling mill stand, of the type involving a bedplate structure with a substantially "U"-shaped embedding structure (1), within which the rolling mill assembly is embedded and fixed (2), with at least one couple of horizontal rolling cylinders (210-310), by the substantially "U"-shaped embedding structure, which extends upwards at least up to the upper horizontal cylinder axis of the couple of horizontal rolling cylinders (210-310) and makes up vertical sliding jointed guide elements (11-110) with corresponding opposite vertical counter-guides (201) in the rolling mill assembly (2).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: NARDUZZI, Lorenzo

SERIAL NO.: (Intl Appn No. PCT/IT00/00042)

FILED: (Intl File Date: 11 Feb. 2000)

TITLE: DISASSEMBLABLE ROLLING MILL STAND

REMARKS ON PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In this preliminary amendment, please consider the following remarks in conjunction with the amendments to the above-identified application as follows:

REMARKS

The present Preliminary Amendment has been entered for the purpose of placing the application into a more proper U.S. format. In particular, certain grammatical and idiomatic inconsistencies have been corrected by amendment to the specification, and the application is corrected for certain typographical errors found in the originally submitted application. No new matter has been added by these amendments. The specification is an English translation of the Italian original, and the proper subject headings have been added.

The claims have been amended so as to conform with U.S. requirements.


An Abstract was added so as to comply of U.S. requirements.

Applicant respectfully requests that the present Amendment be entered prior to an initial Official Action on the present application.

Respectfully submitted,

8-28-01

Date



John S. Egbert
Reg. No. 30,627
Attorney for Applicant

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(713)224-8080
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: NARDUZZI, Lorenzo

SERIAL NO.: (Intl Appn No. PCT/IT00/00042)

FILED: (Intl File Date: 11 Feb. 2000)

TITLE: DISASSEMBLABLE ROLLING MILL STAND

VERSION WITH MARKINGS TO SHOW CHANGES in the PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as follows:

IN THE SPECIFICATION

On page 1, the paragraph beginning with "TITLE OF" and ending with "INVENTION" has been deleted. There is no marked-up copy.

On page 1, the paragraph beginning with "FIELD OF" and ending with "THE INVENTION.", has been amended as follows:

BACKGROUND [FIELD] OF THE INVENTION

1. Field of the Invention

On page 1, the paragraph beginning with "The present invention" and ending with "mill stand.", has been amended as follows:

The present invention [has for object] are also relates to a disassemblable rolling mill stand.

On page 1, the paragraph beginning with "BACKGROUND" and ending with "ART", has been amended as follows:

[BACKGROUND ART] 2. Description of the Related Art

On page 2, the paragraph beginning with "BRIEF DESCRIPTION" and ending with "THE INVENTION", has been amended as follows:

BRIEF [DESCRIPTION] SUMMARY OF THE INVENTION

On page 3, the paragraph beginning with "In alternative said" and ending with "at the base.", has been amended as follows:

In the alternative said bedplate is intended to receive a rolling mill assembly with horizontal cylinders with eight engaged pivoting large screws: four [upperly] upper screws on the guide uprights and four at the base.

On page 3, the paragraph beginning with "BRIEF DESCRIPTION" and ending with "OF THE DRAWINGS", has been amended as follows:

BRIEF DESCRIPTION OF THE [SEVERL] SEVERAL VIEWS OF THE DRAWINGS

On page 4, the paragraph beginning with "Figs. 11-13" and ending with "(Fig. 13-14).", has been amended as follows:

Figs. [11-13 and 12-14, show the view of the solution] 11-14 are schematic side views showing the invention as in the preceding figures, with extracted rolling mill stand (figs. 11-12) with respect to the underlying bedplate (Fig. 13-14).

IN THE CLAIMS

On page 6, the paragraph beginning with "CLAIMS" and ending with "CLAIMS", has been amended as follows:

CLAIMS

I Claim:

In Claim 1, the claim has been amended as follows:

1. (Amended) Disassemblable rolling mill stand[, of the type involving] comprising a bedplate structure with a substantially "U"-shaped embedding (1), within which a rolling mill assembly (2), with at least one couple of horizontal rolling cylinders (210-310), is embedded and fixed by fixing means (202-10/12) to said bedplate (1),

wherein said substantially "U"-shaped embedding structure

[-] extends upwards with opposite vertical-guide uprights (11) to include the upper horizontal cylinder (210-310), and

[-] realizes vertical sliding embedding guide means (11) with corresponding opposite vertical counter-guides (201) in said rolling mill assembly (2) which couple inside of said opposite vertical-guide uprights (11),

[characterised in that]

[-] and wherein said opposite vertical counter-guides (201) [have] are comprised of external side retaining extensions (201-200) realised with sliding surfaces (200) substantially shaped like a "C" and opposite C", horizontally outwards opened (11-110-201).

In Claim 2, the claim has been amended as follows:

2. (Amended) Disassemblable rolling mill stand according to [the preceding claims, characterised in that] Claim 1, wherein said rolling mill assembly (2) is a universal rolling mill assembly [with] comprised of a couple of horizontal cylinders (210), and couple of extractable vertical rolling mill side assemblies (22-220), laterally extractable and interchangeable by means of eight horizontal large screws, opposite four by four (202).

In Claim 3, the claim has been amended as follows:

3. (Amended) Rolling mill stand according to [the preceding claim, characterised in that] Claim 2, wherein said eight horizontal large screws, opposite four by four (202), are identical to said fixing means, which guide and tighten not only, said extractable vertical rolling mill side assemblies (22-220) on the centrally arranged horizontal rolling mill assembly (21), but also the whole universal rolling mill assembly (2) between said guide uprights (11).

In Claim 4, the claim has been amended as follows:

4. (Amended) Disassemblable rolling mill stand according to claim 1, [characterised in that] wherein said rolling mill assembly (2) [includes] further comprises a single couple of horizontal rolling cylinders (3-310).

In Claim 5, the claim has been amended as follows:

5. (Amended) Disassemblable rolling mill stand according to [the preceding claims, characterised in that] Claim 1, wherein said fixing means [consist of] comprise eight rotatable large screws (10-12), [of which:]

[-] wherein four opposite rotatable large screws (10), are [upperly] upper pivoted in couple, to the corners of said guide uprights (11) of said bedplate (1) and,

[-] wherein four opposite rotatable large screws (12), are pivoted in couple, on the base of said bedplate (1).

In Claim 6, the claim has been amended as follows:

6. (Amended) Disassemblable rolling mill stand according to [the preceding claims, characterised in that] Claim 1, wherein said rolling mill assembly (2) [contains] comprises two couples of screw-stay-rods (212) operating on respective gaskets for the holding of horizontal rolling cylinders (210).

IN THE ABSTRACT

On a separate page 8, an Abstract has been newly added. There is no marked-up copy of this Abstract.

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09/914480 *Amex*
518 Rec'd PCT/PTO 28 AUG 2001

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DESCRIPTIONDISASSEMBLABLE ROLLING MILL STANDTechnical Field

The present invention has for object a disassemblable rolling mill stand.

Background Art

In prior art, disassemblable rolling mill stands are known.

Solutions of disassemblable rolling mill stands are known, see for example IT-UD91A000118 (US-A-5,457,979) and PCT/IT/97/00237 (WO 98/15365) that uses two couples of screw-stays or screw tie-rods (1,2,3,4), to join and tie the different components of a horizontal rolling stand, using a "U" shaped support basement realizing a cage (9) that extends upwards with uprights (90) till to enclose the lower part, including the lower horizontal cylinder (51), of the whole horizontal rolling stand. US-A-561339292 discloses a similar horizontal rolling stand with "U"-shaped basement whose uprights (2) extend upwards to encase (cage) the whole structure of the roller assemblies (both lower and upper cylinder). A "U" shape basement is also disclosed in EP-A-0040584 (Ref.24), regarding a stand for stationary rolling line, but the uprights (24) of this "U"-shaped basement do not extend to enclose the lower horizontal cylinder. US-A-5497664 discloses a disassemblable universal rolling mill stand with a flat basement not having a "U"-shape feature.

Because of their being disassemblable, the present rolling mill stands have a limited solidity or strength and anyway the fact of being disassemblable limits their reliability, also making the assembling system complex.

However, the disassemblable rolling mill stands have great advantages, first of all, the possibility of interchanging the different component elements and also of easily intervening for the change or maintenance of their parts and of the component elements subjected to wear such as the rolling cylinders.

The purpose of the present invention is that of obviating the above mentioned drawbacks and of providing in particular a simple rolling mill stand, more efficient, with a complete, easy and fast interchangeability of the component parts, and nevertheless, having the highest compactedness and strength.

The problem is solved as claimed by means of a disassemblable rolling mill stand, of the type involving a substantially "U"-shaped embedding bedplate structure, within which the rolling mill assembly, with at least a couple of horizontal rolling cylinders, is embedded and fixed by fixing means, characterised in that said substantially "U"-shaped embedding structure:

1 - extends upwards with opposite uprights, up to at least the upper
2 horizontal cylinder axis of said couple of horizontal rolling cylinders;
3 - it makes up vertical sliding jointed guide elements with
4 corresponding opposite vertical counter-guides in said rolling mill
5 assembly which couple inside of said opposite uprights with external
6 retaining side extension, making up a joint, on the horizontal plane, with
7 guide walls substantially shaped like two outwardly opened opposite "C".
8 Thus there is the advantage of simplifying the structure even allowing
9 the total disassemblability and the highest compactedness and strength.
10 In particular the guide system with opposite vertical guide uprights with
11 inside-outside embedding, gives the highest solidity and safety in addition
12 to a functionality which equals the integral structures, reducing at the
13 minimum the slacks and dangers deriving from loosening.
14 Advantageously in the universal stand solutions eight horizontal large
15 screws, four by four opposite, which at the same time tighten on the
16 horizontal centre rolling mill assembly, two side extractable assemblies,
17 and the whole assembly between said uprights, are used.
18 In alternative said bedplate is intended to receive a rolling mill assembly
19 with horizontal cylinders with eight engaged pivoting large screws: four
20 upperly on the guide uprights and four at the base.
21 These and other advantages will appear from the following description of
22 a preferential embodiment solution, with the aid of the enclosed
23 drawings, whose execution details are not to be considered as limiting but
24 are only given as an example.
25 Figures 1 and 2 are front and side elevation schematic views of the
26 rolling mill stand operationally assembled with the universal rolling mill
27 assembly with horizontal and vertical rolling cylinders.
28 Figures 3 and 4 are front elevation schematic views like the preceding

1 ones, of the universal rolling mill stand (Fig. 3) operationally extracted
2 from its bedplate (Fig. 4).

3 Figures 5 and 6 are side elevation schematic views with respect to the
4 preceding ones, of the universal rolling mill stand (Fig. 5) operationally
5 extracted from its bedplate (Fig. 6), with respect to the figure (2).

6 Figs. 7, 8 show a front and plan elevation view of the universal rolling
7 mill assembly, with side opposite extraction of the respective vertical
8 rolling mill assemblies.

9 Figs. 9 and 10 show a front and side elevation view of the rolling mill
10 stand with rolling mill assembly with a single couple of horizontal
11 cylinders.

12 Figs. 11-13 and 12-14, show the view of the solution as in the preceding
13 figures, with extracted rolling mill stand (figs. 11-12) with respect to the
14 underlying bedplate (Fig. 13-14).

15 As it can be noticed in the above shown figures, the invention is
16 substantially embodied in a disassemblable rolling mill stand, of the type
17 involving a base structure (1) with a substantially "U"-shaped embedding
18 structure (1), within whose uprights (11) the rolling mill assembly is
19 embedded and fixed (2), with at least one couple of horizontal rolling
20 cylinders (210-310), by screw fixing means (202-10/12).

21 The substantially "U"-shaped embedding structure:

22 - extends upwards with said guide uprights (11), advantageously
23 up to the upper horizontal cylinder axis of said couple of horizontal
24 rolling cylinders (210-310);

25 - it makes up vertical sliding jointed guide elements (11-110) with
26 corresponding opposite vertical counter-guides (210) in the rolling mill
27 assembly (2) with substantially opposite "C"-shaped embedding on the
28 vertical plane, by jointing with side retention (201-110) of said guide

1 uprights (11).

2 Said rolling mill assembly advantageously consists of a universal
3 assembly with horizontal centre rolling mill assembly (21) with a couple
4 of horizontal cylinders (210), laterally and in opposition to which, two
5 vertical rolling mill assemblies are tightened (22) by means of eight
6 opposite horizontal large screws (202).

7 In the preferential solution said rolling mill assembly (2) is tightened
8 simultaneously between said vertical guide uprights (11) of said bedplate
9 (1), always by said eight opposite horizontal large screws (202).

10 Alternately said rolling mill assembly (2) includes a single couple of
11 horizontal rolling cylinders (3-310).

12 In such a case the rolling mill assembly fixing means (3) consist of eight
13 rotatable large screws (10-12) pivoted:

14 - four of them upperly (10) on the corners of the guide uprights
15 (11) and

16 - four of them on said bedplate (12).

17 Advantageously said rolling mill assembly (2) includes two couples of
18 screw-stays (212) operating on respective gaskets for the holding of
19 horizontal rolling cylinders (210).

20 The motion transmission system for the removal and approach of the
21 horizontal rolling cylinders (210-310) occurs by means of said screw-
22 stays (212-312) which drive said cylinders-holder gaskets respectively
23 upper one (3100) and lower one (3101) and by means of the upper
24 transmission assembly (211-311).

25 The adjustment structure being drawn from IT-UD91A000118 and
26 PCT/IT97/00237.

27 200 Indicates the vertical coupling surface of the guide sides 201 of the
28 rolling mill assembly 2, which engage above the uprights 11 of the

- 1 bedplate matching with its sides (110).

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1 Claims

2 1. Disassemblable rolling mill stand, of the type involving a bedplate
3 structure with a substantially "U"-shaped embedding (1), within which a
4 rolling mill assembly (2), with at least one couple of horizontal rolling
5 cylinders (210-310), is embedded and fixed by fixing means (202-10/12) to
6 said bedplate (1),

7 wherein said substantially "U"-shaped embedding structure

8 - extends upwards with opposite vertical-guide uprights (11) to
9 include the upper horizontal cylinder (210-310),

10 - realizes vertical sliding embedding guide means (11) with
11 corresponding opposite vertical counter-guides (201) in said rolling mill
12 assembly (2) which couple inside of said opposite vertical-guide uprights
13 (11),

14 characterised in that

15 - said opposite vertical counter-guides (201) have external side retaining
16 extensions (201-200 realised with sliding surfaces (200) substantially
17 shaped like a "C" and opposite C", horizontally outwards opened (11-110-
18 201).

19 2. Disassemblable rolling mill stand according to the preceding claims,
20 characterised in that said rolling mill assembly (2) is a universal rolling
21 mill assembly with couple of horizontal cylinders (210), and couple of
22 extractable vertical rolling mill side assemblies (22-220), laterally
23 extractable and interchangeable by means of eight horizontal large
24 screws, opposite four by four (202).

25 3. Rolling mill stand according to the preceding claim, characterised in
26 that said eight horizontal large screws, opposite four by four (202), are
27 identical to said fixing means, which guide and tighten not only said
28 extractable vertical rolling mill side assemblies (22-220) on the centrally

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1 arranged horizontal rolling mill assembly (21), but also the whole
2 universal rolling mill assembly (2) between said guide uprights (11).

3 4. Disassemblable rolling mill stand according to claim 1., characterised
4 in that said rolling mill assembly (2) includes a single couple of
5 horizontal rolling cylinders (3-310).

6 5. Disassemblable rolling mill stand according to the preceding
7 claims, characterised in that said fixing means consist of eight rotatable
8 large screws (10-12), of which:

9 - four opposite rotatable large screws (10), are upperly pivoted in
10 couple, to the corners of said guide uprights (11) of said bedplate (1) and,
11 - four opposite rotatable large screws (12), are pivoted in couple, on the
12 base of said bedplate (1).

13 6. Disassemblable rolling mill stand according to the preceding claims,
14 characterised in that said rolling mill assembly (2) contains two couples
15 of screw-stay-rods (212) operating on respective gaskets for the holding
16 of horizontal rolling cylinders (210).

17

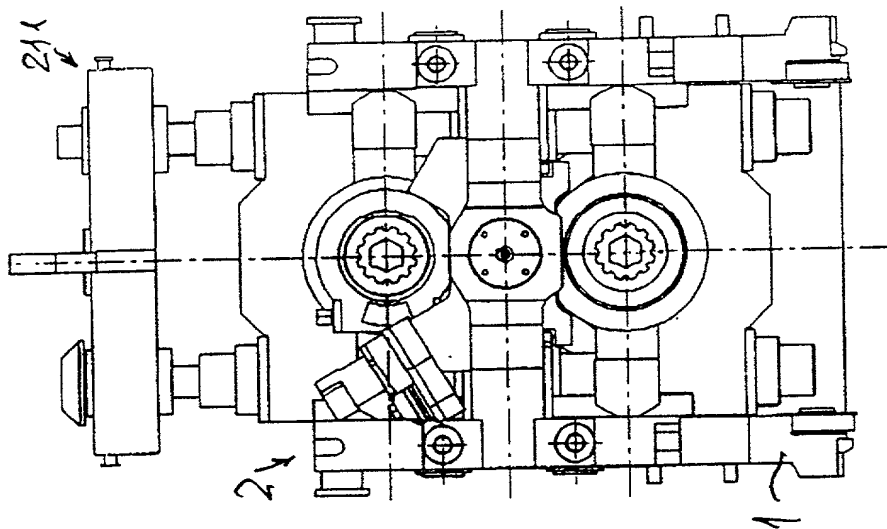


Fig. 2

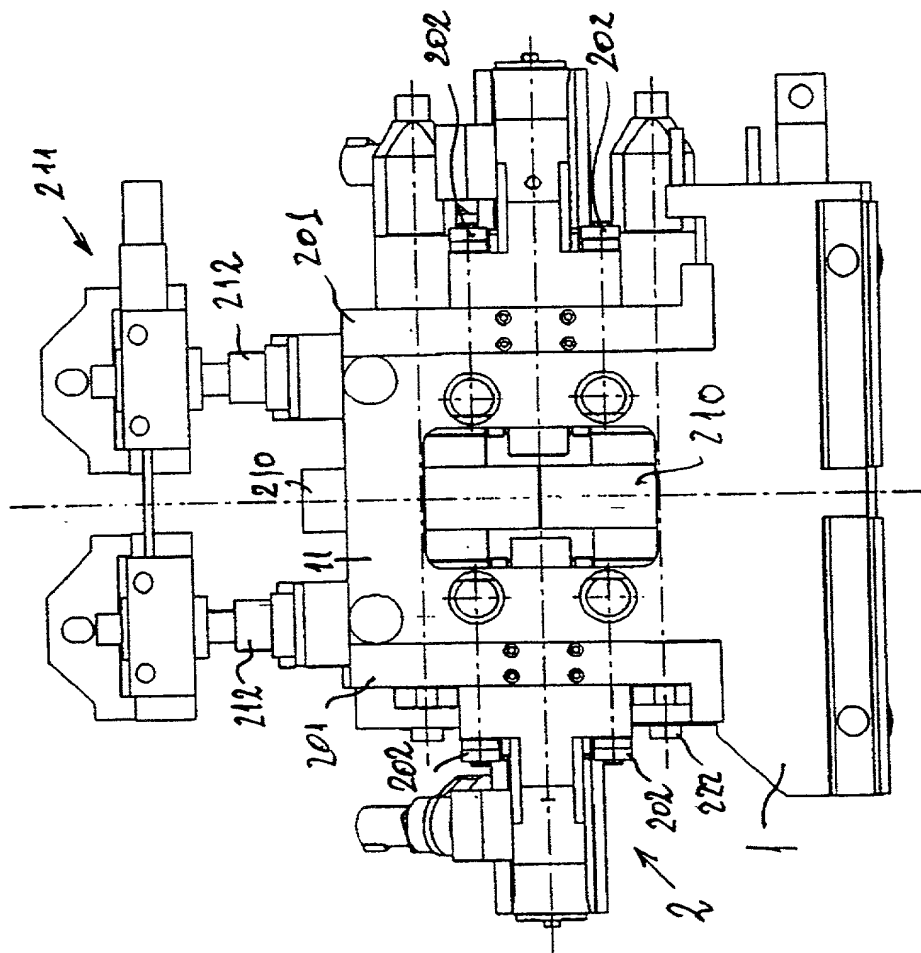
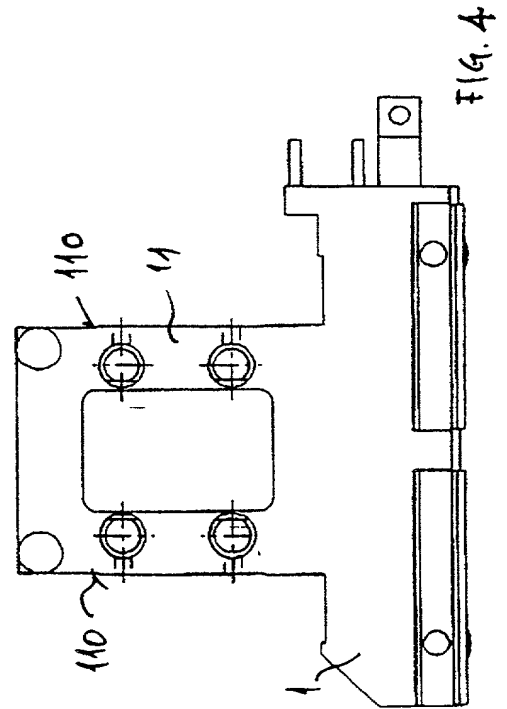
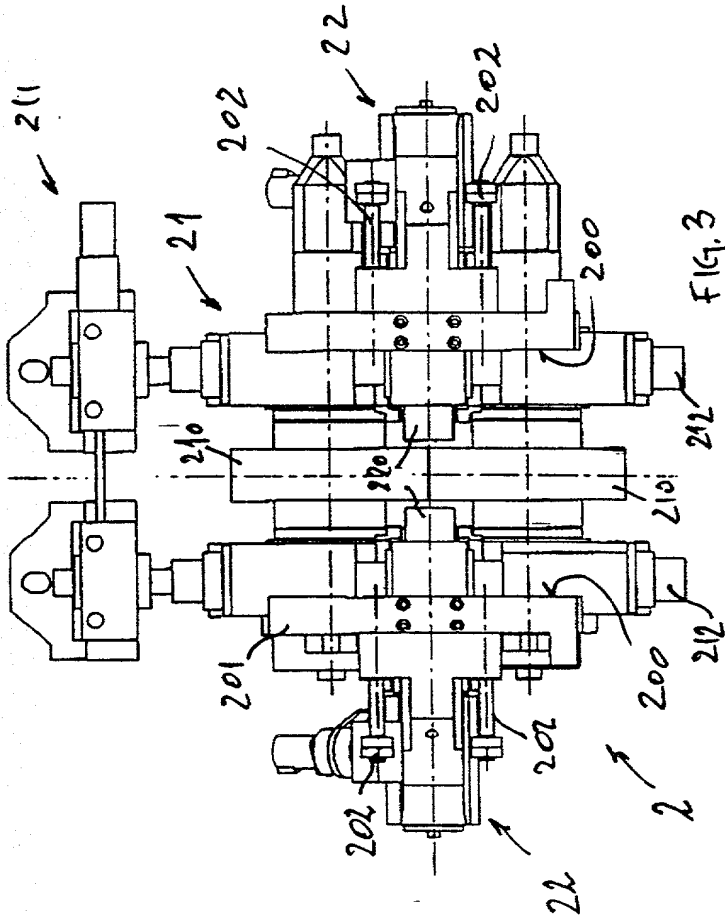
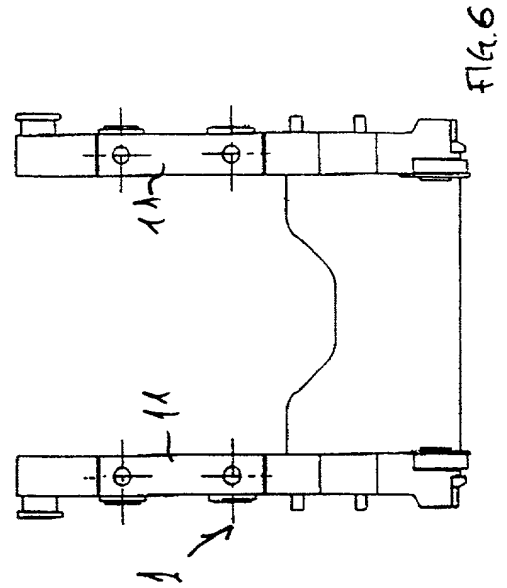
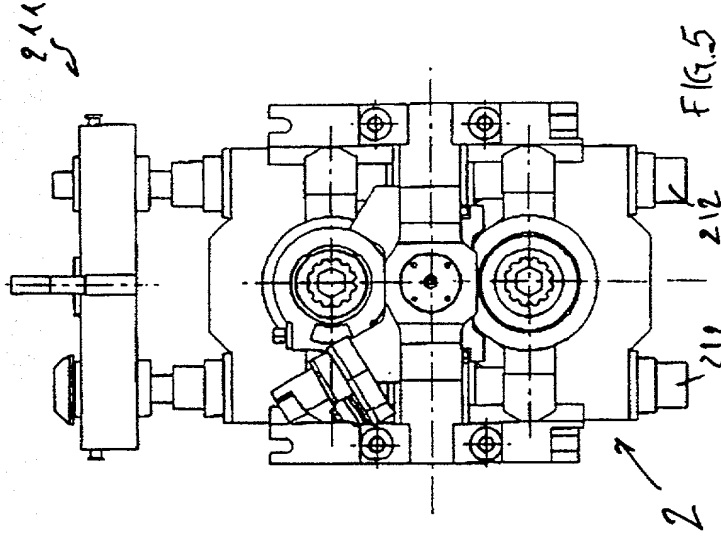
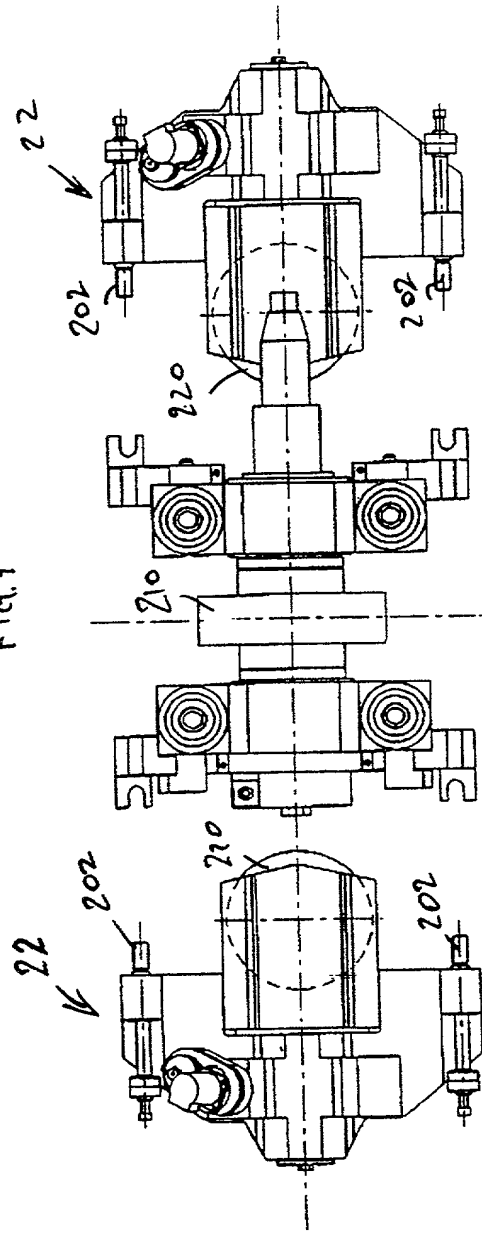
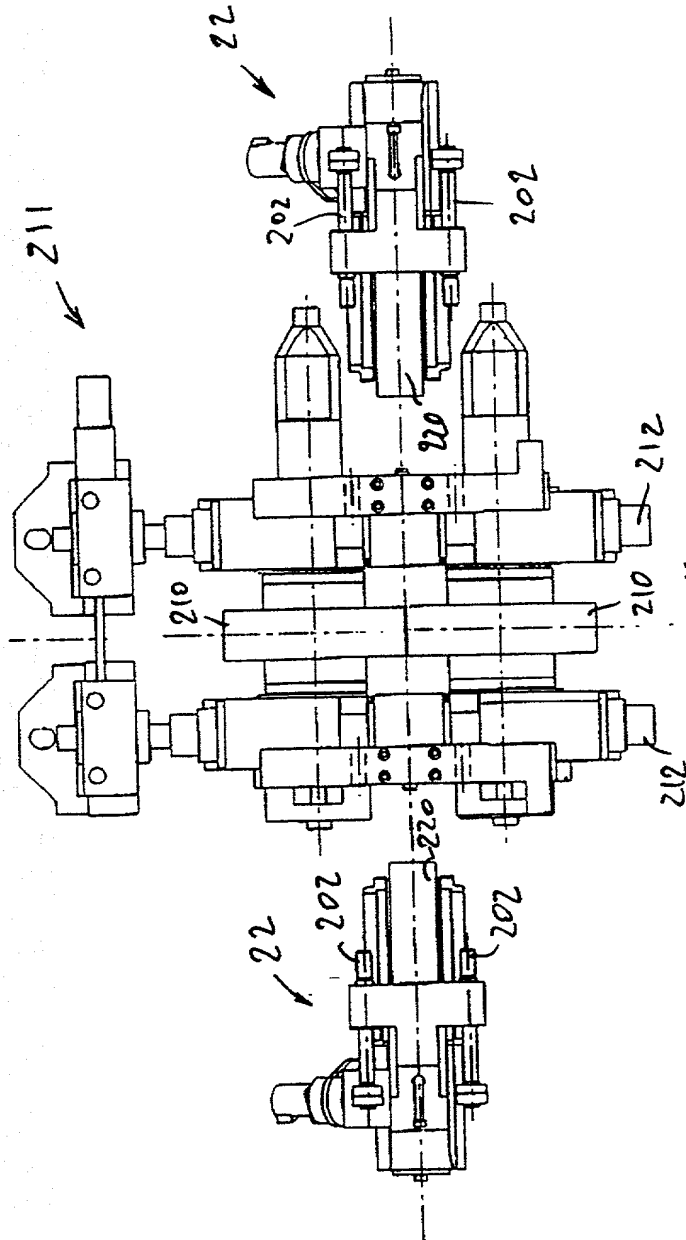


Fig. 1

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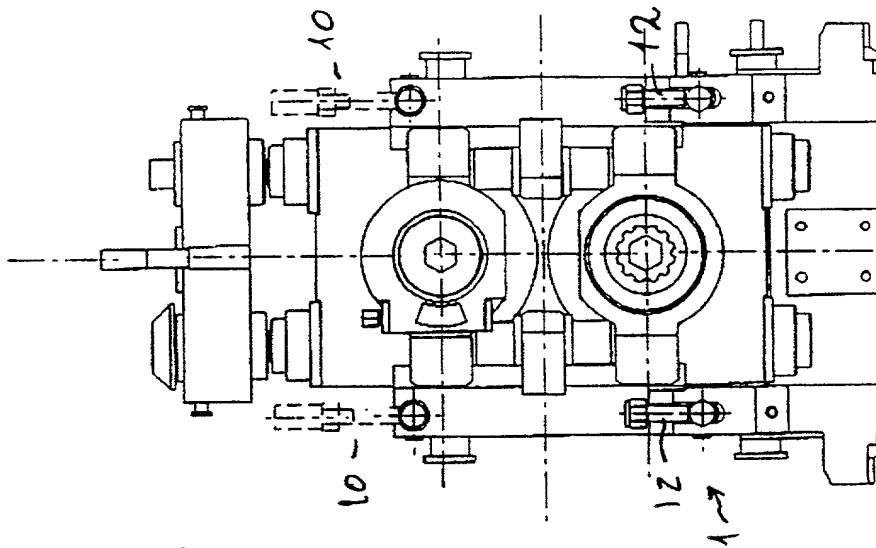


FIG. 10

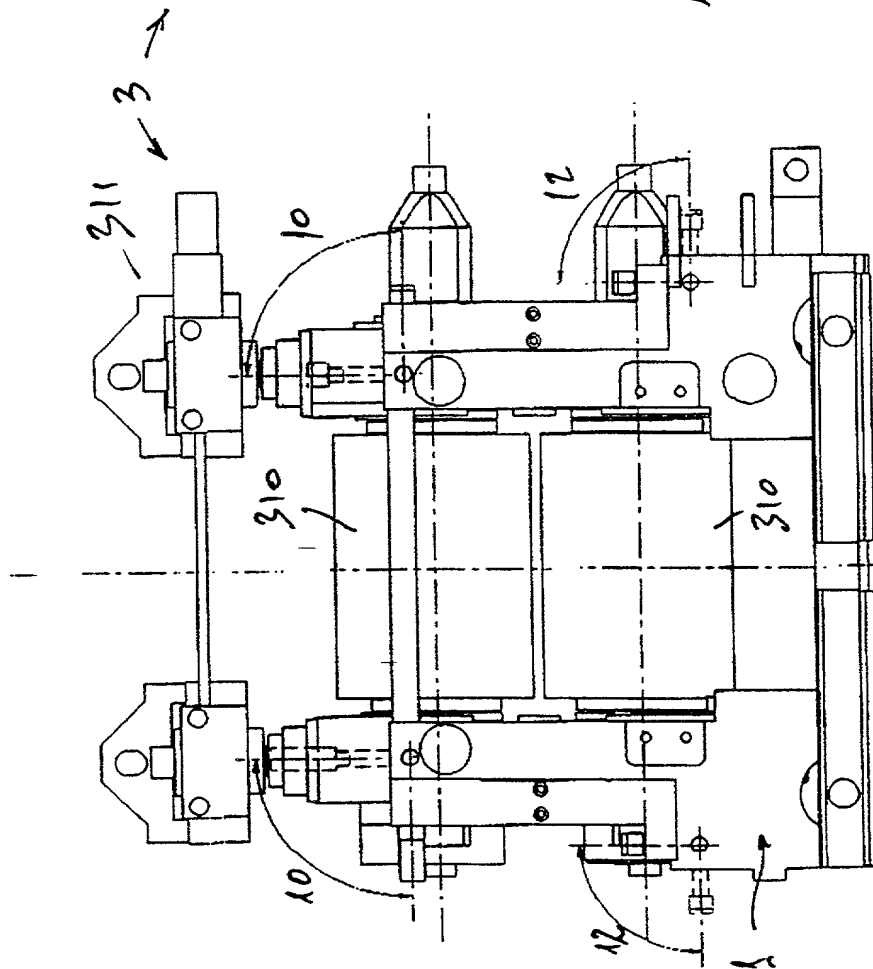
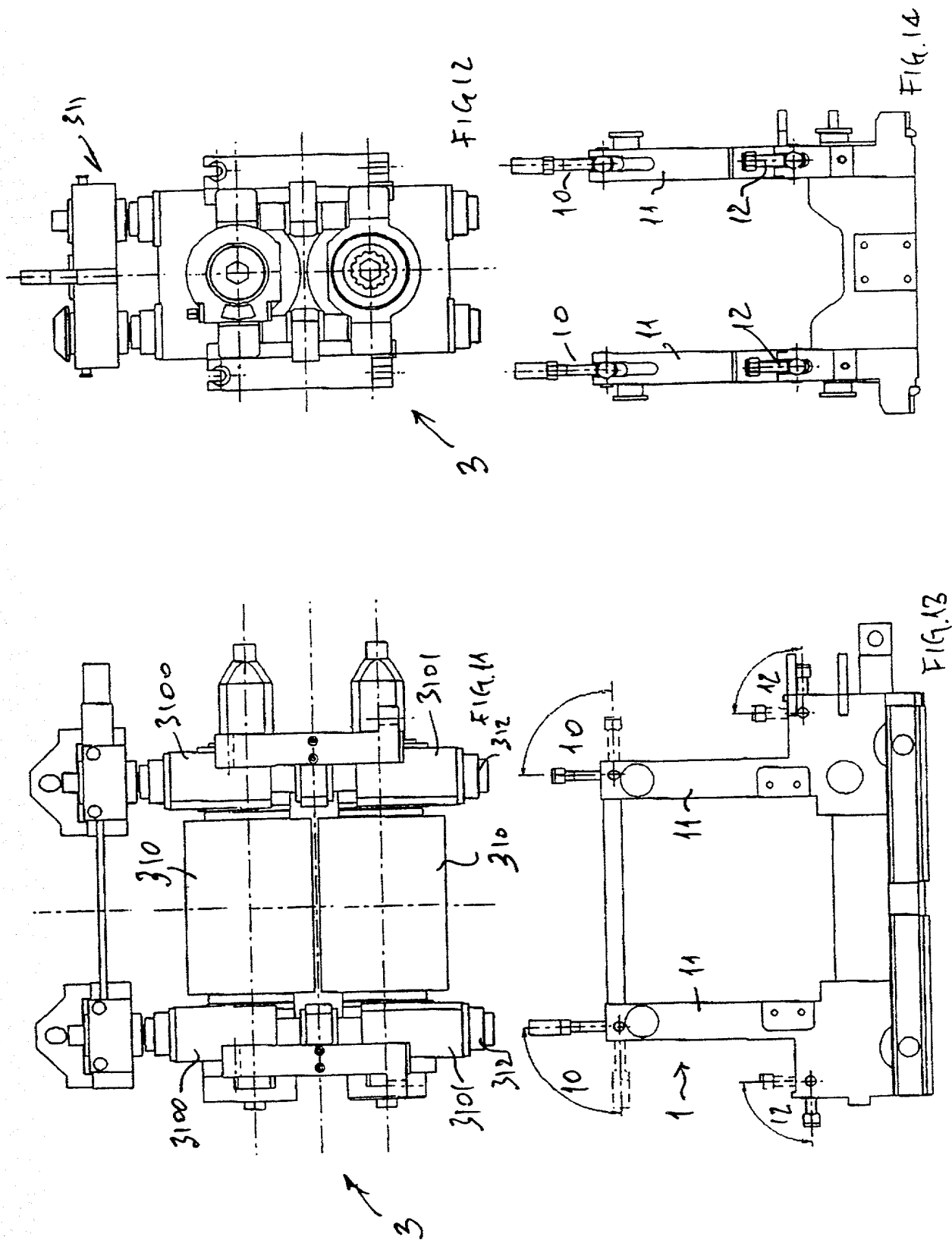


FIG. 9

202270-08447650



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e la sua descrizione è allegata alla presente Dichiarazione a meno che non sia spuntata la seguente casella:

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Il sottoscritto riconosce l'obbligo di rivelare informazioni essenziali ai fini della determinazione della brevettabilità ai sensi del Titolo 37, Codice dei Regolamenti Federali, § 1.56.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

DISASSEMBLABLE ROLLING

MILL STAND

the specification of which is attached hereto unless the following box is checked:

- ☒ was filed on 11 Feb. 2000
as United States Application Number or PCT
International Application Number
PCT/IT00/00042 and was amended on _____
(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

[Page 1 of 3]

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[1-16]—page 1 of 3)

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Il sottoscritto rivendica con la presente la priorità prevista dal Titolo 35, Codice degli Stati Uniti, § 119(e)-(d) o § 365(b) in relazione a qualsiasi domanda o domande estere di brevetto o certificato di inventore, o dal Titolo 35, § 365(a) degli stessi Codice in relazione a qualsiasi domanda internazionale PCT nella quale è designato almeno un paese diverso dagli Stati Uniti, i suddetti domande e certificati essendo elencati sotto, e, spuntando le seguenti caselle, ha anche identificato sotto qualsiasi domanda estera di brevetto o certificato di inventore, o domanda internazionale PCT, la cui data di deposito preceda quella della domanda per la quale è rivendicata la priorità.

Prior Foreign Application(s)

Domande Estere Anteriori

UD99A000053 Italy

(Number) (Country)
(Numero) (Nazione)

(Number) (Country)
(Numero) (Nazione)

Il sottoscritto rivendica con la presente i benefici previsti dal Titolo 35, Codice degli Stati Uniti, § 119(e), in relazione a qualsiasi domanda o domande provvisorie degli Stati Uniti elencate sotto.

(Application No.) (Filing Date)
(N° della domanda) (Data di deposito)

(Application No.) (Filing Date)
(N° della domanda) (Data di deposito)

Il sottoscritto rivendica con la presente i benefici previsti dal Titolo 35, Codice degli Stati Uniti, § 120, in relazione a qualsiasi domanda o domande statunitensi, o dal Titolo 35, § 365(c) degli stessi Codice in relazione a qualsiasi domanda internazionale PCT nella quale sono designati gli Stati Uniti, i suddette domande essendo elencate sotto e, nella misura in cui l'oggetto di ciascuna rivendicazione di questa domanda non sia stato esposto nella domanda statunitense o internazionale PCT anteriore nel modo previsto dal primo paragrafo del Titolo 35, Codice degli Stati Uniti, § 112, riconosce l'obbligo di rivelare informazioni essenziali ai fini della determinazione della brevettabilità ai sensi del Titolo 37, Codice dei Regolamenti Federali, § 1.56, le quali diventino disponibili durante il periodo compreso tra la data di deposito della domanda anteriore e la data di deposito nazionale o internazionale PCT della presente domanda.

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(N° della domanda) (Data di deposito)

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(N° della domanda) (Data di deposito)

Con la presente, il sottoscritto dichiara veritiere tutte le affermazioni contenute in questa domanda in relazione alle proprie conoscenze e di ritenere vere tutte le affermazioni o informazioni presentate. Dichiaro inoltre che tali asserzioni sono state espresse nella piena consapevolezza che le dichiarazioni intenzionalmente false sono punibili con una multa, l'incarcerazione o entrambe, ai sensi della Sezione 1001 del Titolo 18 del Codice degli Stati Uniti e che tali dichiarazioni intenzionalmente false possono mettere a repentaglio la validità della domanda o di qualsiasi brevetto rilasciato in merito.

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Priority Not Claimed

Diritto di priorità non rivendicato

08/03/1999 ☐
(Day/Month/Year Filed)
(Giorno/Mese/Anno di deposito)

(Day/Month/Year Filed) ☐
(Giorno/Mese/Anno di deposito)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Status) (patented, pending, abandoned)
(Stato) (concessione di brevetto, in corso di esame, abbandono)

(Status) (patented, pending, abandoned)
(Stato) (concessione di brevetto, in corso di esame, abbandono)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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PROCURA: Il sottoscritto inventore nomina con la presente il seguente avvocato o avvocati e/o agente o agenti al fine di istruire questa pratica e di condurre tutte le operazioni ad essa pertinenti presso l'Ufficio dei Brevetti e Marchi di Fabbrica: (Elencare il nome ed il numero di matricola).

Customer No. 24106

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number). John S. Egbert; 30,627
Andrew W. Chu; 46,625
Al Harrison; 31,708

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Direct Telephone Calls to: (name and telephone number)
John S. Egbert; 713-224-8080

Nome e cognome dell'unico o del primo inventore	Full name of sole or first inventor <u>Lorenzo NARDUZZI</u>
Firma dell'inventore Data	Inventor's signature <u>[Signature]</u> Date <u>Nov 20, 2001</u>
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Cittadinanza	Citizenship <u>Italian ITX</u>
Recapito postale	Post Office Address <u>Via Udine, 91</u> <u>I-33017 Taranto ITALY</u>
Nome e cognome dell'eventuale secondo coinventore	Full name of second joint inventor, if any
Firma del secondo coinventore Data	Second Inventor's signature Date
Residenza	Residence
Cittadinanza	Citizenship
Recapito postale	Post Office Address

(Fornire le stesse informazioni e le firme del terzo e degli ulteriori coinventori.)

(Supply similar information and signature for third and subsequent joint inventors.)

[Page 3 of 3]

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[1-16]—page 3 of 3)



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